

## REMARKS

The Examiner has rejected the Claims on the basis that the Examiner is unclear as to what is meant by "cut resonator". It is respectfully submitted that an uncut resonator is shown in Figure 1. When viewed from the top, the resonator has a circular cross section. A cut resonator is a part of that resonator that is cut away. For example, a half cut resonator is half of an uncut resonator and a quarter cut resonator is a quarter of an uncut resonator. A half cut resonator has a semicircular cross section and a quarter cut resonator has a cross section equal to a quarter of a circle or 90 degrees. It is respectfully submitted that the terms cut resonator, half cut resonator and quarter cut resonator are well known to those skilled in the art. Fiedziuszko 5,179,074 refers to and describes a "quarter cut dielectric resonator" and a half cut dielectric resonator" (column 5, lines 9 to 23 and Figures 8 and 3 respectively). It is therefore respectfully submitted that the Examiner's 112 objection should be withdrawn.

The Examiner has rejected Claims 1 to 4, 13, 19, 21 to 24, 34, 36, 38 and 39 on the basis of Fiedziuszko, but also in light of the Section 112 rejection. Since the Section 112 rejection is withdrawn, it follows that the rejection based on Fiedziuszko will also be withdrawn. In any event, Fiedziuszko patent refers in Figure 8, to a quarter cut dielectric resonator filter where a quarter cut dielectric resonator is disposed against superconductive layer 18 abutting to adjacent surfaces of the cavity 22. The Fiedziuszko patent indicates that this configuration has a somewhat further reduced Q factor. Figure 8 refers to a similar arrangement for half cut dielectric resonators. In any event, it is respectfully submitted that the resonators described in the Fiedziuszko patent are dielectric resonators and are not conductor-loaded resonators as the Examiner states.

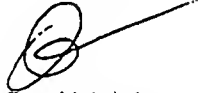
The Ballato patent refers to a surface acoustic wave crystal resonator for a crystal oscillator. It is respectfully submitted that that resonator is also not a conductor-loaded resonator.

It is therefore respectfully submitted that the objection by the Examiner based on Fiedziuszko be withdrawn.

The Examiner is prepared to allow Claims 5 to 12, 14 to 17, 20, 25 to 33, 35 and 37. Applicant has amended the application to include the conductor-loaded resonator of Claim 3 in Claim 1 and of Claim 23 in Claim 21.. It is therefore respectfully submitted

that the Application is condition for allowance.

Yours very truly,

A handwritten signature in black ink, consisting of a stylized 'D' followed by a horizontal line that extends to the right.

Daryl W. Schnurr  
Reg. No. 28,569